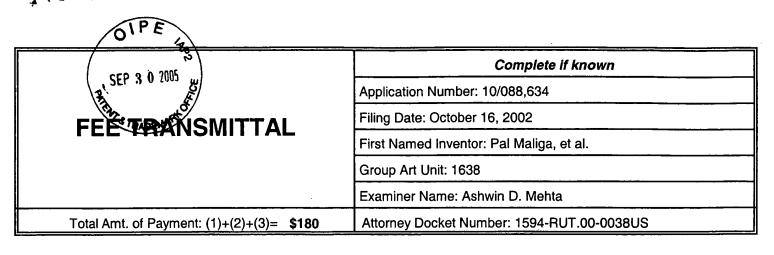
Approved for use through 07/31/2006. OMB 0651-0031

	Under the Paperwark Reduction Act of 199% no perso	ns are required to respond to a co Application Number	llection of information unless it displays a va 10/088,634	alid OMB control number
	TRANSMITTAL	Filing Date	March 20, 2002	
	FORM	First Named Inventor	Pal Maliga	
	• .	Art Unit	1638	
(to be used	(to be used for all correspondence after initial filing)	Examiner Name	Ashwin D. Mehta	
	Total Number of Pages in This Submission	Attorney Docket Number	1594-RUT.00-0038US	

	ENCLOSURES (Check all that apply)											
				EINC	LUSC	RES (Chec	Kali ulat apply	"	After A	Illowance Communication to TC		
~	Fee Trans	mittal Fo	rm		Drawing	g(s)			Alter A	niowance Communication to 1C		
	Fee Attached				Licensi	ng-related Papers				l Communication to Board eals and Interferences		
Amendment/Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request Information Disclosure Statement Certified Copy of Priority Document(s) Reply to Missing Parts/ Incomplete Application			authori	Provision Provis	n to Convert to a conal Application of Attorney, Revo e of Corresponder al Disclaimer st for Refund amber of CD(s) and scape Table conduction e check is improper harge any underpose.	n CD er, or the fee ca	Ame	(Appea Proprie Status Other below) ponse to endment	Enclosure(s) (please Identify			
			ssing Parts FR 1.52 or 1.53									
			SIGNA	TURE	OF AF	PLICANT, A	TORNEY, C	OR AG	ENT			
Firm N	lame	Dann Do	orfman Herrell & S									
Signat	ure	K	achten	Re	Bau	T						
Printe	d name	Kathlee	n D. Rigaut, Ph.D.	, J.D.	Ü							
Date	-	Septemi	ber 28, 2005				Reg. No.	43,047	7			
CERTIFICATE OF TRANSMISSION/MAILING												
suffici	by certify the ent postage te shown be	as first c	rrespondence is b lass mail in an en	eing fact velope a	simile tra ddresse	ansmitted to the U ed to: Commission	SPTO or depos er for Patents, I	sited witl P.O. Box	h the Un c 1450, /	ited States Postal Service with Alexandria, VA 22313-1450 on		
Signat	ture		Janes	m	· 7	lightly	24)					
Typed	or printed i	name	Janice M. Nightlii	nger	Typed or printed name							

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



METHOD OF	F PAYMENT (check one)		FEE CALCULATION (continued	1)
	•		ADDITIONAL FEES	
1. The Commissioner is hereby	authorized to:		Fee Description	Fee Paid
[] Charge indicated fees			Surcharge-late filing fee or oath	
[X] Charge additional fees	;		Surcharge - late provisional filing fee or cover sheet	
[X] Credit overpayments			Extension for response within first month	
to the account of DAN	IN, DORFMAN, HERRELL 8	SKILLMAN	Extension for response within second month	
Deposit Account Numb	er <u>04-1406</u>		Extension for response within third month	
			Extension for response within fourth month	
2. Payment enclosed:			Notice of Appeal	
	Check in the amount o	f \$180	Filing a brief in support of an appeal	
•			Request for oral hearing	<u> </u>
FEE CALCU	JLATION		Petition to revive unavoidably abandoned application	
1. FILING FEE		Fee	Petition to revive unintentionally abandoned application	
Fee Description			Issue fee	
Utility filing fee			Petitions to the Commissioner	
Design filing fee			Petitions related to provisional applications	
Plant filing fee		 	Submission of Information Disclosure Stmt.	\$180
Reissue filing fee			Recording each patent assignment per property	
Provisional filing fee			Other fee (specify) Advance Order (10 copies)	
			Other fee (specify)	<u>.</u>
	SUBTOTAL (1))		
			SUBTOTAL (3)	\$180
		—		
2. Claims				
	Paid Extra	Fee		
Total Claims	-20 = 0 x 25 =			
Independent Claims	- 3 = 0 x 100 =			
Multiple Dependent				
(First presentation)				
	SUBTOTAL (2)	\$0		

Submitted By: Typed or

Printed Name Kathleen D. Rigaut, Ph.D., J.D.

Reg. Number 43,047

Deposit Account User ID 04-1406

Date September 28, 2005

Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

e the Application of

Pal Maliga, et al.

Application No.

10/088,634

Attorney Docket No.

1594-RUT.00-0038US

Filed:

October 16, 2002

For:

SITE SPECIFIC RECOMBINATION SYSTEMS TO MANIPULATE THE PLASTID GENOME OF HIGHER

PLANTS

Examiner:

Ashwin D. Mehta

Group Art Unit:

1638

CERTIFICATE OF MAILING UNDER 37 C.F.R § 1.8(a)

I hereby certify that this Correspondence is being deposited on the date listed below with the United States Postal Service as first-class mail in an envelope properly addressed to COMMISSIONER FOR PATENTS, P.O. Box 1450, Alexandria, VA 22313-1450.

Sciptember 28 2005

Janice M. Nightlinger

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97

In compliance with the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicants are submitting herewith 3 pages of Form PTO-1449 and copies of the references listed thereon. This Information Disclosure Statement is being filed more than three months after the filing date of this application, and after receipt of the first Official Action on the merits, but before receipt of a Final Official Action or a Notice of Allowance.

Accordingly, the fee of \$180.00 required under 37 C.F.R. 1.97(c) is enclosed. In the event the fee is incorrect, the Commissioner is authorized to debit or credit the Applicants' attorney's Deposit Account No. 04-1406. A duplicate copy of the Fee

Transmittal is enclosed for such charging or debiting.

In the opinion of the undersigned, the references submitted herewith are the most pertinent of which the undersigned is aware. However, no representation is made or intended that more pertinent references do not exist.

This submission is not an admission that the references listed on the attached Form PTO-1449 constitute prior art against the claims of this application.

The Examiner is respectfully requested to confirm receipt and consideration of the cited reference by initialing and returning a copy of the attached Form PTO-1449 in accordance with MPEP §609.

Early and favorable consideration of this application is respectfully requested.

Respectfully submitted,

DANN, DORFMAN, HERRELL & SKILLMAN A Professional Corporation Attorneys for Applicant(s)

Kathleen D. Rigaut, Ph.D., J.D. PTO Registration No. 43,047

Telephone: (215) 563-4100 Facsimile: (215) 563-4044 Customer No: 000110

PTO/SB/08A (07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Redistion Act of 1995 of persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Substitute for form 1449/P

Sheet 1

SEP 3 0 7005

(Use as many sheets as necessary)

Complete if Known					
Application Number	10/088,634				
Filing Date	March 20, 2002				
First Named Inventor	Pal Maliga				
Art Unit	1638				
Examiner Name	Ashwin D. Mehta				
Attorney Docket Number	1594-RUT 00-0038US				

Examiner Initials*	Cite No.1	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1	^{US-} 5,614,395	03-25-1997	Ryals, et al.	
	A2	^{US-} 5,877,402	03-02-1999	Maliga, et al.	
	A3	^{US-} 6,297,054 B1	10-02-2001	Maliga, et al.	
	A4	^{US-} 6,388,168 B1	05-14-2002	Maiga, et al.	
	A5	^{US-} 6,376,744 B1	04-23-2002	Maliga, et al.	
	A6	^{US-} 6,472,586 B1	10-29-2002	Maliga, et al.	
		US-			
		US-			
-		US-			
		US-			
		US-			
	<u> </u>	US-			
	<u> </u>	US-			
	1	US-			
	<u> </u>	US-			
		US-			
	1	US-			
		US-			
	 	US-	1		

		FOREI	GN PATENT DOCU	IMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages	
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T⁵
						ᆫ
						L
						Г
						Т

Examiner	Date	
Signature	Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
of a collection of information unless it contains a valid OMB control number.

Substitu	te for form 1449/PTO			Complete if Known			
0000				Application Number	10/088,634		
INF	ORMATION	DIS	SCLOSURE	Filing Date	March 20, 2002		
STATEMENT BY APPLICANT				First Named Inventor	Pal Maliga		
	STATEMENT BY APPLICAN (Use as many sheets as necessary)		necessary)	Art Unit	1638		
	(000 do many one			Examiner Name	Ashwin D. Mehta		
Sheet	2	of	3	Attorney Docket Number	1594-RUT.00-0038US		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C1	KHAN, M.S. "Fluorescent antibiotic resistance marker for tracking plastid transformation in higher plants"; Nature Biotechnology, 17: 910-915 (1999)	:
	C2	DALE, E.C. "Gene transfer with subsequent removal of the selection gene from the host genome"; Proc. Natl. Acad. Sci. USA, 88: 10558-10562 (1991)	
	СЗ	SRIVASTAVA, V. "Single-copy transgenic wheat generated through the resolution of complex integration patterns"; Proc. Natl. Acad. Sci. USA, 96: 11117-11121 (1999)	
	C4	LE, Y. "Nuclear targeting determinants of the phage P1 Cre DNA recombinase"; Nucleic Acids Research, 27(24): 4703-4709 (1999)	
•	C5	LYZNIK, L.A. "Activity of yeast FLP recombinase in maize and rice protoplasts"; Nucleic Acids Research, 21(4): 969-975 (1993)	
	C6	LYZNIK, L.A. "FLP-mediated recombination of FRT sites in the maize genome"; Nucleic Acids Research, 24(19): 3784-3789 (1996)	
	C7	ZOUBENKO, O.V. "Efficient targeting of foreign genes into the tobacco plastid genome"; Nucleic Acids Research, 22(19): 3819-3824 (1994)	
	C8	LOVE, J. "Stringent control of transgene expression in Arabidopsis thaliana using the Top10 promoter system"; The Plant Journal, 21(6): 579-588 (2000)	
	С9	SERINO, G. "A negative selection scheme based on the expression of cytosine deaminase in plastids"; The Plant Journal, 12(3): 697-701 (1997)	
	C10	LYZNIK, L.A. "Heat-inducible expression of FLP gene in maize cells"; The Plant Journal, 8(2): 177-186 (1995)	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant:

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SE/08B (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/	PTO		Complete if Known			
Substitute for form 1443/	FIO		Application Number	10/088,634		
INFORMATI	ON DIS	CLOSURE	Filing Date	March 20, 2002		
STATEMEN	T BY A	PPLICANT	First Named Inventor	Pal Maliga		
(1) a a a ma			Art Unit	1638		
(Use as mai	ny sheets as n	lecessary)	Examiner Name	Ashwin D. Mehta		
Sheet 3	of	3	Attorney Docket Number	1594-RUT.00-0038US		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	C11	SOLL, J. "Protein translocation into and across the chloroplastic envelope membranes"; Plant Molecular Biology, 38: 191-207 (1998)	
	C12	ADAMS, D. "Cre-lox Recombination in Escherichia coli Cells Mechanistic Differences from the in Vitro Reaction"; J. Mol. Biol., 226: 661-673 (1992)	
	C13	CRAIG, N.L. "The Mechanism of Conservative Site-Specific Recombination"; Annu. Rev. Genet., 22: 77-105 (1988)	
	C14	LICHTENSTEIN, C. "Prospects for reverse genetics in plants using recombination"; Plant Molecular Biology, 21: v-xii (1993)	
	C15	LUBBEN, T.H. "Chloroplast import characteristics of chimeric proteins"; Plant Molecular Biology"; 12: 13-18 (1989)	
	C16	RUSSELL, S.H. "Directed excision of a transgene from the plant genome"; Mol Gen Genet, 234: 49-59 (1992)	
	C17	TIMKO, M.P. "Structure and Expression of Nuclear Genes Encoding Polypeptides of the Photosynthetic Apparatus"; Mol Biol of the Photosynthetic Apparatus, 381-396 (1985)	
	C18	TIMMERMANS, M.C.P. "The pFF plasmids: cassettes utilising CaMV sequences for expression of foreign genes in plants"; Journal of Biotechnology, 14: 333-344 (1990)	
	C19	WASMANN, C.C. "The importance of the transit peptide and the transported protein for protein import into chloroplasts"; Mol Gen Genet, 205: 446-453 (1986)	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

BLACK BORDERS

IMAGE CUT OFF AT TOP, BOTTOM OR SIDES

FADED TEXT OR DRAWING

BLURRED OR ILLEGIBLE TEXT OR DRAWING

SKEWED/SLANTED IMAGES

COLOR OR BLACK AND WHITE PHOTOGRAPHS

GRAY SCALE DOCUMENTS

LINES OR MARKS ON ORIGINAL DOCUMENT

REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.